## Questions and answers about Round 1 of Research to Operations Initiative

Funding Opportunity Number: NOAA-NWS-NWSPO-2015-2004117

- 1. Is there a specific format for the Letter of Intent (LOI) that we need follow? **Answer:** No.
- 2 a. Are we going to be provided any feedback on the LOI after we submit one?
- 2 b. The LOIs are due on 8/29, and the proposals are in a month, i.e., 9/30. How long do you think the PIs will get feedbacks? It'll be great if they can give responses sooner so they don't need to write the full proposals if the LOIs are not encouraged.

**Answer:** Letters of Intent (LOIs) are not required. NOAA will not provide feedback on LOIs unless a problem is noted. LOIs will help NOAA prepare for review of full applications.

3. The announcement seems consistently emphasizing "Next Generation Global Prediction System (NGGPS)". Does this indicate top priorities will be mainly given on work for NCEP global model such GFS? Will work on NCEP regional model such as regional NMMB model for NAM system be considered as top priorities?

Answer: The announcement states in section B. 2 that prediction priorities include e.g.: Advancement in representation of atmospheric model dynamics that is efficient and adaptable to future operational architectures [... and] development of physically based parameterizations [...] that span a wide range of spatial scales from cloud and convective permitting resolutions (~1 km) to horizontal resolutions used in climate applications (~100 km). NMMB model has no higher priority than other models being considered by NWS including:

- GFS contact person is Mark Iredell (<u>mark.iredell@noaa.gov</u>)
- NMMB contact person is Geoff DiMego (geoff.dimego@noaa.gov)
- WRF-ARW contact person is Geoff DiMego (geoff.dimego@noaa.gov)
- Ocean model contact person is Hendrik Tolman (hendrik.tolman@noaa.gov)
- Wave model contact person is Hendrik Tolman (hendrik.tolman@noaa.gov)
- Land model contact person is Michael Ek (michael.ek@noaa.gov)
- Ice model contact person is Hendrik Tolman (hendrik.tolman@noaa.gov)
- 4. When the announcement mentions regional modeling work, it seems consistently emphasizing hurricanes. Would regional convective hazardous weather over the CONUS such MCS and convective storms be considered as top priorities as well?

**Answer:** The announcement also states that Program priority B. 4 is Advances in storm-scale, fire weather and convective/severe weather prediction.

- 5. I have a question on the qualifications of federal employees. I have 4-5 feds in my division who have been working with NCEP on various data assimilation projects and now are interested in writing the proposals. Is this FFO primarily for NCEP and University PIs?

  Answer: Please see eligibility information in the announcement: "Federal laboratories are eligible to receive awards as lead investigators under this FFO, only for proposals to work in partnership with NOAA testbeds and proving grounds and are encouraged to submit applications on elements 2.a, 2.b, 3, 4, and 6." Also, see answer to question 7a-b-c (below).
- 6. My collaborator [...] and I are about to begin a NOAA HFIP project that has been recently recommended for funding [...] it is expected that [our method] will provide a measurable increase in skill also for hurricane NWP prediction. The challenge we face is that our HFIP project start date to develop the technique coincides with the R2O application deadline. We are confident that we will have adapted [our method] for hurricane applications by early 2015, ready for operational testing in 2016, and are also confident that it will produce valuable results. Given this timeline and expectations, we are wondering if submitting a proposal to the R2O solicitation as a follow-up work to our HFIP project would be appropriate.

**Answer:** Please note that applications should propose work different from that already funded by NOAA as one of the factors used in the selection of proposals for funding is C 3. "Duplication of other projects funded or considered for funding by NOAA/federal agencies."

- 7a. I have a question regarding the R2O proposals Who do we submit the proposals to? If the proposals are to be submitted through the <u>grants.gov</u> process, it is my understanding that we cannot include Fed salaries.
- 7b. Our NOAA division has on-site staff from cooperative institutes that work shoulder-to-shoulder with Federal scientists, using government infrastructure, HPCS and other resources. The best way for us to submit a proposal would be where a federal scientist is the principal investigator, there is one other federal scientist, and the remaining researchers are from cooperative institutes. The budget proposal would reflect this split. Would this entire proposal be competing for the limited \$600K because of the feds? Or is only the fed labor cost competing for part of the \$600K?
- 7c. Can a proposal be submitted with both feds and Cooperative Institute staff? If so, the funds for the CI staff would be credited under the cooperative agreements. Or are you expecting separate but linked proposals, one from the feds and one for each of the CIs? That is a much more complicated arrangement.

**Answer:** It is recommended that federal/external partnerships send only 1 proposal to grants.gov from the external partner (such as a Cooperative Institute) as the lead investigator. For proposals led by external partners, but which also include federal investigators, only the portion of funding that is budgeted for federal equipment, salaries, etc. will apply toward the \$600K limit. The total funding for proposals that are led by federal principal investigators will apply toward the \$600K

limit. Budget proposals should detail the portion of the proposal that will fund the federal partners including staff time and equipment (including salaries). If investigators from multiple partners are listed, then the contributions and budgets for each must be clearly indicated. Government agencies must partner with a NOAA testbed to be eligible. Applications which are exclusively from Federal agencies should be submitted directly to: Christopher.hedge@noaa.gov.

8. I don't think I understand the distinction between having a federal PI or external PI in Answer 7 for the 600K limit. I assume a single proposal, whether submitted with a federal PI has to remain under the 600K limit? Is the limit 500K, at 250K per year, or 600K? Is the limit higher with a federal PI?

**Answer:** All individual proposals are for a maximum of \$250K/year for up to 2 years. The 600K limit refers to the total portion of funding for the entire program (out of \$3.7M) that may be awarded to proposals that involve federal principal investigators.

9. I plan to submit a letter of intent to propose to the current FFO associated with the R2O initiative. The project will be led by a cooperative institute, which has a strong linkage to a NOAA Testbed. A critical collaborator on the project will be an FFRDC; they will be responsible for more than half of the tasks associated with the project. The FFO announcement indicates that organizations such as FFRDC's cannot serve as project leads; otherwise, they would probably lead the project. With these issues in mind, I am curious how funding for the FFRDC would be delivered if the project were funded. This information will influence how the proposal budget is designed/structured. Would it be possible for FFRDC project funds to be sent directly to them and cooperative institute funds to be sent directly to the university? Or, would all of the funds have to be sent to the cooperative institute, who would then create a subcontract to the FFRDC for their funds?

**Answer:** Funding for non-NOAA institutes normally would go to the lead institute (the cooperative institute in this case) who would distribute the budgeted amounts to the partner institutes (such as the FFRDC), which would be specified in the cooperative agreement.

10a. We are planning to submit a proposal that involves federal principal investigators from 2 NCEP Centers and a Federal Lab. The bulk of the anticipated budget would be used to fund two (yet to be named) research associates and a graduate student through a cooperative institute. Would this arrangement work through this funding announcement?

10b. Can you tell us if NCEP Centers could or should request direct funding as co-PI's with cooperative institutes or universities to support a Testbed collaboration noted for week 3 and 4? Or should the NCEP Centers and the Testbed only receive funding for the R2O from the programmatic funds that have not yet been distributed and not this research funding? It would seem from the Q&A and FFO announcement that the NCEP centers can apply for funding to support our testbed partnership with a university or cooperative institute.

**Answer:** In order for the cooperative institute to receive any funding, someone from that institute must be named as one of the PI's and the proposal must be submitted from them.

The budget proposal should detail the funding requested for the cooperative institute and for the NCEP centers. The funding portion for the NCEP Center would be held back and provided directly to that Center.

11. Would use of non-NCEP model data, such as ECMWF, in addition to NCEP models in the proposed research be acceptable, given the Next Generation Global Prediction System model for week 3 and 4 will be in development at the time of this funding?

**Answer:** Yes. For information on foreign participants, see section III, A, 2 in the FFO.

- 12. Can a postdoc from Universities lead a proposal with senior people as co-PIs? **Answer:** Yes.
- 13. Can you tell me if a proposal that addresses real-time streamflow and flood forecasting using hydrologic models would be an eligible research project for this program?

  Answer: In Program Objective A, the announcement mentions "high-impact and storm-scale weather forecast models to meet WRN objectives to effectively mitigate impacts of severe weather, flash floods, disruptive winter weather, severe convection, aviation weather and fire weather". The announcement also states in B. Program Priorities section 4, "One critical need to support daily forecasts of high impact weather events, including tornado outbreaks, flash floods…".